

NOTES ON NORTH AND CENTRAL AMERICAN *LOPHOSCUS* SPP.
(HEMIPTERA: PHYMATIDAE, MACROCEPHALINAE)

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Abstract.—Two new species are described: *Lophoscutus froeschneri* from Mexico and *L. haitiensis* from Haiti. A key is given to the 17 North and Central American species of *Lophoscutus*. *Macrocephalus gracilis* Handlirsch and *Macrocephalus falleni* Stål are transferred to *Lophoscutus*. *Macrocephalus stali* Handlirsch is synonymized with *Lophoscutus lepidus* (Stål), 1862.

The genus *Lophoscutus* Kormilev, 1951, is distributed in the tropical and sub-tropical areas of the Americas. In the north, it penetrates into southern United States; in the south, it extends only to Bolivia and central Brazil. The Caribbean area has many endemic species. This genus, originally described as a subgenus of *Macrocephalus* (Kormilev, 1951), was given generic status by Maa and Lin (1956). Kormilev (1984) provided a key to the genera belonging in the sub-family Macrocephalinae, including *Lophoscutus*.

In the past 25 years the number of Central American species has nearly doubled and the only existing key to these species given by Handlirsch (1897) is 90 years old. In this paper, I offer a new key to the North and Central American species. *Macrocephalus falleni* Stål and *Macrocephalus gracilis* Handlirsch are transferred to the genus *Lophoscutus*. *Lophoscutus gracilis* described from "Amérique du Nord," is actually a Brazilian species and, therefore, omitted from the key. *Lophoscutus stali* (Handlirsch) in long series, cannot be separated from *Lophoscutus lepidus* (Stål) and, therefore, is synonymized with the latter.

All measurements in this paper were taken with a micromillimeter eyepiece, 25

units = 1 mm. The length of abdomen was measured from the anterior border of connexivum II to the tip of the abdomen.

KEY TO NORTH AND CENTRAL AMERICAN
SPECIES OF *LOPHOSCUS*

1. Granulation of head and pronotum setigerous 2
- Granulation of head and pronotum not setigerous 6
2. Granulation of pronotum spiculoid 3
- Granulation of pronotum rounded 5
3. Large species, (male) over 7 mm; head, pronotum, scutellum and fore femora with strong, spiculoid, setigerous granulation; venter with round, setigerous granulation; lateral angles of pronotum rounded; Venezuela, also from Mexico. *asper* (Stål).
- Small species, (male) less than 7 mm; spiculoid granulation less strong 4
4. Large species, (male) over 6 mm; lateral angles of pronotum rounded and slightly incised; Mexico *spiculosus* (Champion)
- Small species, (male) less than 5 mm; lateral angles of pronotum acute; Mexico
..... *chemsaki* Kormilev
5. Small species, (male) less than 5 mm; ratio length : width as 1.90:1 lateral angles of pronotum acute; granulation of head and pronotum round and setigerous; Mexico ...
..... *michelbacheri* Kormilev
- Large species, (male) over 5 mm; ratio length : width as 2.55:1; lateral angles of pronotum truncate; granulation of pronotum and scu-

- tellum very fine, with minute, incumbent setae; scutellum dark brown with yellow median line reaching tip of scutellum; Mexico *schaffneri* Kormilev
6. Pronotum wider than abdomen; large species, over 9 mm; lateral angles of pronotum incised 7
- Pronotum at most as wide as abdomen; generally smaller species, if about 9 mm, lateral angles of pronotum truncate or rounded ... 8
7. Antennae moderately stout, antennal segment IV distinctly longer than I-III together; lateral angles of pronotum acute, emarginate behind tip; connexivum very narrow, scarcely visible from above; Nicaragua, Panama *angustatus* (Champion)
- Antennae stout; antennal segment IV nearly as long as I-III together; lateral angles of pronotum incised; connexivum narrow, but clearly visible from above; Panama *attenuatus* (Champion)
8. Large species, over 8 mm 9
- Small species, less than 7 mm 10
9. Antennal segment IV (male) twice as long as II and III together; pronotum and scutellum with yellow, narrow, median line reaching tip of scutellum; Mexico *falleni* (Stål)
- Antennal segment IV (male) about as long as II and III together; scutellum with median line enlarged at base, then narrowed, reaching tip of scutellum; Guatemala *granulatus* (Champion)
10. Long and narrow species (male) more than 3× as long as maximum width 11
- Short and wide species (male) less than 2.5× as long as maximum width 12
11. Pronotum (male) as wide as abdomen (1.80:1.80), antennae 2× as long as width of head across eyes; antennal segment IV longer than II and III together (14:11); color predominantly black; Mexico *aterrimus* Kormilev
- Pronotum (male) narrower than abdomen (1.76:1.83); antennae less than twice as long as width of head across eyes (44.5:23); antennal segment IV shorter than II and III together (15:17); predominant color yellow to salmon; granulations on body pearl like; Mexico *margaritis* Kormilev
12. Scutellum with parallel sides and rough punctures throughout the disk; U.S.A. *prehensilis* (Fabricius)
- Lateral border of scutellum not parallel; punctures rough on hind lobe of pronotum and base of scutellum, much finer toward tip of scutellum 13
13. Scutellum with lateral borders sinuate at base; anterolateral borders of hind lobe of pronotum feebly convex; pronotal carinae reaching hind angles of pronotum; Mexico *inaequalis* (Champion)
- Scutellum narrow at base, but lateral borders not sinuate at base 14
14. More elongate, ratio length : width (female) as 2.20:1; lateral borders of scutellum carinate on basal half; Mexico *viridis* Kormilev
- Less elongate, ratio length : width (female) as 2.10:1 or less; if it is 2.20:1, then punctures on hind lobe of pronotum and base of scutellum moderate and on apical ⅓ of scutellum extremely fine; lateral borders of scutellum not carinate 15
15. More elongate, ratio length : width (female) as 2.20:1, punctures on pronotum and base of scutellum moderate, very fine on apical ⅓ of scutellum and dense; U.S.A. *uhleri* (Handlirsch)
- Less elongate, ratio length : width (female) as 2.10:1; punctures on hind lobe of pronotum and base of scutellum rough, finer on apical half of scutellum 16
16. Small species (female) less than 5.1 mm; antennae short, ratio length of antennae : width of head across eyes as 1.43:1; Mexico *froeschneri* Kormilev
- Large species (female) over 5.5 mm; antennae longer and stouter, ratio length of antennae : width of head across eyes as 1.60:1; granulation of pronotum sharp, sometimes even spiculoid; Mexico *lepidus* (Stål)

Lophoscutus froeschneri Kormilev,

NEW SPECIES

Fig. 1

Female.—Elongate-ovate; head, fore lobe of pronotum, corium, connexivum, pleurae, venter and all femora, with fine, white granulations; hind lobe of pronotum and scutellum roughly punctured.

Head: Densely granulate, longer on median line than width across eyes (23:17.5); clypeus finely granulate, flanked by 2 (1 + 1) smooth, longitudinal depressions; ocelli equidistant from eyes and hind border of head. Antennae short, ratio length of antennae : width of head across eyes as 1.43:1; relative length and width of antennal segments I to IV are: 8(4):4(3):5(2.5):8(5). Relative length of labial segments I to III are: 12:10:7. *Pronotum:* Shorter on median line than its width across lateral angles (33:48); anterior border sinuate and granulate; an-

terior angles acute, slightly diverging; lateral borders of fore lobe crenulate; anterolateral borders of hind lobe slightly convex, granulate; lateral angles rounded; posterolateral borders firstly convex, then sinuate; hind angles small, but distinct; hind border convex medially. Fore disk with white granulation arranged in longitudinal rows; hind disk roughly punctured and with scarce, dispersed, white granules. Carinae parallel, densely granulate at base, then thin, diverging in an arc and almost reaching hind angles. *Scutellum*: Narrowed at base, then widening in an arc, longer than its maximum width at connexivum VI (67:36) and slightly longer than abdomen; median carina slightly enlarged and yellow at basal $\frac{1}{4}$, then thin, reaching tip of scutellum; disk roughly punctured on basal $\frac{2}{3}$, more finely on apical $\frac{1}{3}$. *Hemelytra*: Mostly covered by scutellum; corium granulate, reaching half of connexivum V. *Abdomen*: Ovate, almost as long as its maximum width across segment IV (65:64); postero-exterior angles of connexiva not protruding; connexiva sparsely granulate. *Venter*: Granulate; Mesosternal cross without granulations. *Legs*: Fore femora longer than their maximum width (28:17). *Color*: Head testaceous on upper side, orange laterally; antennal segments I to III orange, IV testaceous; pronotum orange on fore lobe and antero-lateral portions of hind lobe; rest of hind lobe testaceous; scutellum testaceous with exception of 2 (1 + 1) antero-lateral and 2 (1 + 1) postero-lateral yellow spots; corium yellow with exception of testaceous base; pleurae, venter and legs yellow to orange.

Measurements: Total length 5.04 mm; width of pronotum 1.96 mm; width of abdomen 2.56 mm.

Holotype.—♀, MEXICO, Yucatan, Mérida, 29–30.VII.1964, Paul J. Spangler coll.; deposited in the National Museum of Natural History, Washington, D.C.

It is a pleasure to dedicate this beautiful species to my friend Richard C. Froeschner.

Lophoscuteus froeschneri is similar to *L.*

pulcher Kormilev from Hispaniola, but is smaller. In *froeschneri* the lateral angles of the pronotum are rounded and not so acute, the scutellum is less narrowed at base, the abdomen is shorter and more rounded laterally, and the color is different.

Lophoscuteus haitiensis Kormilev,

NEW SPECIES

Fig. 2

Male.—Elongate ovate; head, anterior lobe of pronotum, corium and fore femora exteriorly, granulate; hind lobe of pronotum and scutellum finely punctured.

Head: Longer on median line than width across eyes (23:17); ocelli nearer to eyes than to hind border of head. Antennae twice as long as width of head across eyes (35.5:17); relative length and width of antennal segments I to IV are: 8(4):6(3.5):7.5(3):14(6). Relative length of labial segments I to III are: 12:8:6. *Pronotum*: Shorter on median line than its maximum width across lateral angles (28:45); anterior angles acute; anterior border sinuate; lateral borders of fore lobe straight, diverging backward, granulate; anterolateral borders of hind lobe slightly convex; lateral angles angularly rounded; posterolateral borders of hind lobe firstly convex, then sinuate; hind angles rounded; hind border rounded. Fore disk finely granulate along anterior border; hind disk with 3 longitudinal depressions: medially and sublaterally; carinae straight, diverging, almost reaching hind angles. *Scutellum*: Longer than its maximum width at connexivum IV (70:37), reaching tip of abdomen; lateral borders slightly sinuate at base, then convex, rounded; scutellum at base triangularly raised; median carina enlarged at basal $\frac{1}{3}$ and depressed behind elevation, then thin and reaching tip of abdomen; disk very finely punctured, more roughly at base. *Hemelytra*: Reaching tip of abdomen, corium reaching fore border of connexivum VI. *Abdomen*: Longer than its maximum width across segment IV (68:50);

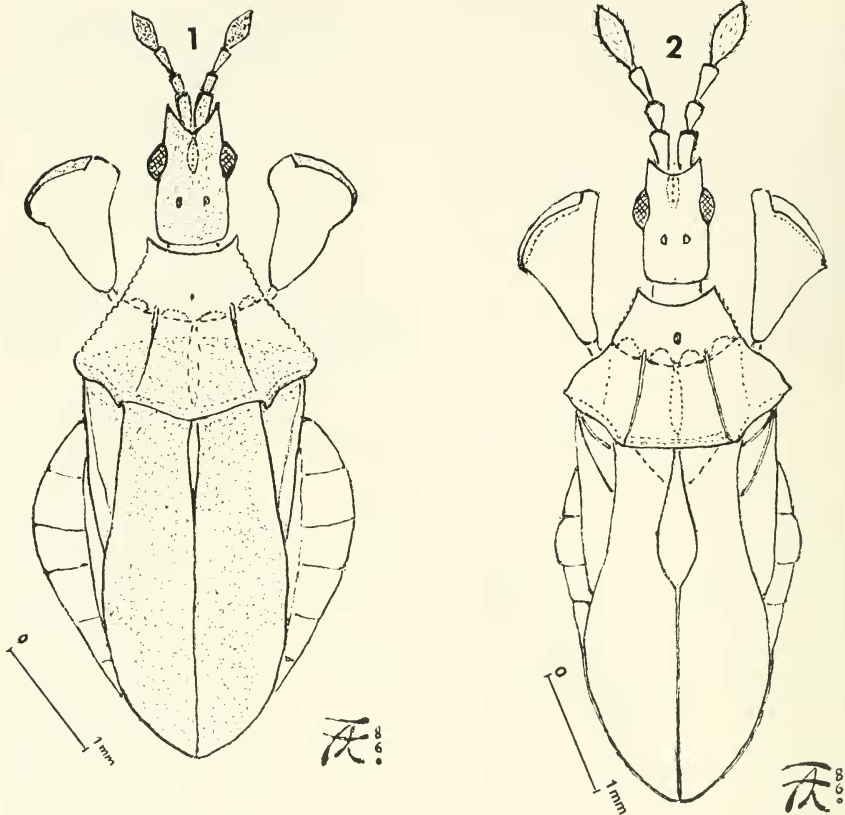


Fig. 1. *Lophoscutus froeschneri*, female, dorsal. Fig. 2. *Lophoscutus haitiensis*, male, dorsal.

lateral borders rounded from II to V, then less convex, apex rounded; connexiva nearly fused; posteroexterior angles of connexiva not protruding. *Legs*: Fore femora twice as long as their maximum width (31:15). *Color*: Head and fore lobe of pronotum black; antennal segment I, hind lobe of pronotum and scutellum, brown; basal spot of scutellum yellow; corium reddish brown; antennal segments II and III, ventral side of body, and fore femora, orange yellow, partially reddish brown; antennal segment IV reddish brown-infusate at tip.

Measurements: Total length 5.04 mm; width of pronotum 1.80 mm; width of abdomen 2.00 mm.

Holotype.—♂, HAITI, Kenscoff, 1-6.VIII.1961, J. Maldonado C. coll. Deposited in the National Museum of Natural History, Washington, D.C.

Lophoscutus haitiensis is similar to *L. insularis* (Dudich) but the abdomen of the former is wider than the pronotum (the two are equally wide in *L. insularis*). They differ also in the relative length of antennal segments.

Lophoscutus falleni (Stål),
NEW COMBINATION

Macrocephalus falleni Stål, 1862: 441.

Only two males of this species were known: Stål's type, from Mexico, is at the Naturhistorisches Museum in Vienna, and a male, from Panama, is in the British Museum (Nat. Hist.) in London. I am now able to give a short description of a female.

Female.—Slightly larger than male and more ovate.

Ratios: Head longer on median line than width across eyes (37:29); relative length and width of antennal segments I to IV are: 12(7):7(5):10(4.5):30(8.5). Relative length of labial segments I to III are: 23:19:12; pronotum shorter on median line than its maximum width across lateral angles (58:86); scutellum longer on median line than its maximum width at segment IV (135:70); abdomen longer on median line than its maximum width across segment III (130:100); fore femora longer than their maximum width (55:30). *Scutellum:* With median carina enlarged at basal $\frac{1}{4}$, then narrow, reaching tip of scutellum and placed on a rooflike elevation, evanescent before tip. *Color:* Grey brown, partially reddish brown; scutellum with dark spots.

Measurements: Total length 9.60 mm; width of pronotum 3.44 mm; width of abdomen 4.00 mm.

Examined specimen.—♀, COSTA RICA, Cartago, Turrialba, 610 m. 31.V.1973, Ginter Ekis coll.; deposited in the National Museum of Natural History, Washington, D.C.

Lophoscutus lepidus (Stål)

Macrocephalus lepidus Stål, 1862: 440.

Macrocephalus stali Handlirsch, 1897: 195.

New Synonymy.

Macrocephalus (*Lophoscutus*) *stali* Kormilev, 1957: 38.

I recently studied long series of *Lophoscutus lepidus* (Stål) and *Lophoscutus stali*

(Handlirsch) and found that there are intermediate specimens. Because it is impossible to separate them, I here consider *Lophoscutus stali* (Handlirsch) a junior synonym of *Lophoscutus lepidus* (Stål).

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